REMARKS

Presently, claims 1-30 are pending, of which claim 1 and claim 18 are independent claims. All the pending claims were rejected in the office action. Applicants traverse the rejections for the following reasons.

Claims 18-30 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. 5,231,074 ("Cima").

Independent claim 18 covers compositions that have "a mole ratio of fluorine to a second metal of from about two to about 18.5." In rejecting claim 18, the action states "Cima discloses a composition ...having a mole ratio of fluorine to the second metal of from about two to about 18.5." However, the action does not say where in Cima such disclosure is found, nor could the applicants find any such disclosure in Cima. To the contrary, the only compositions disclosed by Cima that could meet the other claim limitations have fluorine concentrations in excess a mole ratio of 18.5. In particular, Cima discloses two examples of trifluoroacetate precursor solutions produced by mixing powders of $BaCO_3$, Y_2CO_3-$3H_2O$, and $Cu_2(OH)_2CO_3$ in a 3:1:2 molar ratio and reacting them with ***25% excess*** trifluoroacetic acid (Cima, col. 5, lines 10-17, and col. 9, lines 55-65). When in stoichiometric proportion, the highest mole ratio of fluorine to a metal is 18.5:1 (corresponding to F:Ba). Thus, the ratios disclosed by Cima are higher than 18.5:1 due to the excess trifluoroacetic acid in his formulations. While Cima does concentrate his formulations prior to coating, his fluorine concentration remains above the claimed range because his formulations remain in solution (id.). Accordingly, applicants submit that Cima does not disclose a composition that includes all the limitations of claim 18, and applicants request reconsideration and withdrawal of the rejection of claims 18-30 under 35 U.S.C. §102(b).

Claims 1-17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cima in view of U.S. 6,080,894 ("Oyague").

Independent claim 1 is covers compositions that have "a total free acid concentration of less than about $1x10^{-3}$ molar." The action concedes that Cima does not specifically state the total free acid concentration, but states: "it would have been obvious, to one having ordinary skill in

the art, at the time of the invention, to make said concentration to be less than 0.001 molar ... since it is well known in the chemical arts, as evidenced by Oyague."

We disagree that one of ordinary skill would be motivated Cima's compositions as suggested in the action. Firstly, there is certainly no suggestion in Cima to modify his compositions to provide one that has a total free acid concentration of less than about $1x10^{-3}$ molar. Nowhere does Cima suggest that the acid content of his composition is detrimental to his films. To the contrary, despite recognizing that acidic precursors once coated onto a substrate may attack the substrate (id., col. 2, line 25), Cima reports preparing high performance superconductors (e.g., having "critical current densities in excess of 10^6 A/cm^2 at 77°K" (id., abstract)) using carefully formulated acidic compositions (id., col. 2, lines 57-66 and col. 3, lines 17-25). Moreover, according to Cima, his compositions overcome disadvantages of prior art compositions because they contain "film cation constituents in a stoichiometry nearly equal to that of the final oxide film product," avoiding residual precursor materials in his films which "can cause undesirable reactions between the superconductor film and substrate" (id., col. 1, lines 42-53). Thus, after reading Cima, one skilled in the art would not have been motivated to modify Cima's compositions.

While Oyague discloses compositions having "a free acid concentration in [a] reaction medium in the order of 0.001 to 1% by weight" (Oyague, col. 3, lines 4-5), his compositions are not relevant to the teachings of Cima. Oyague is concerned with improving a propylene oxide and styrene monomer co-production procedure (id., col. 1, lines 61-62), not superconductor films. It is untenable that one of ordinary skill in the art would modify Cima's compositions based on Oyague's teachings, as suggested by the action.

Moreover, even if one of ordinary skill did modify Cima's compositions based on Oyague's teachings, the prior art provides no reasonable expectation of success and it is well established that one of the requirements of obviousness is that the prior art include such a suggestion. For example, as the United States Court of Appeals for the Federal Circuit ruled in In re Vaeck, 947 F.2d 488, 493 (Fed. Cir. 1991):

> Where the claimed subject matter has been rejected as obvious ... a proper analysis under §103 requires, *inter alia*, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill in the art would have a reasonable expectation of success. *See In re Dow Chemical Co.*, 837 F.2d 469, 473, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988). Both the suggestion and the reasonable expectation of success must be founded in the prior art, not in the applicant's disclosure. *Id.*

Therefore, even assuming for the sake of argument (without conceding that such an assumption is proper) the prior art somehow satisfies the first factor noted in Vaeck, the prior art still would not render claims 1-17 obvious because the prior art fails to satisfy the second factor of Vaeck.

Neither Cima nor Oyague, alone or in combination, teaches or suggests the compositions covered by claims 1-17. There is no suggestion to combine these references to provide such methods. Moreover, even if the references were combined the result would not be the compositions of claims 1-17.

The only place where the compostions covered by claims 1-17 are suggested is in Applicants' specification. However, as the Court explained in explained in W.L. Gore and Associates v. Garlock, Inc., 721 F.2d 1540, 1553 (Fed. Cir. 1983):

> To imbue one of ordinary skill with knowledge of the invention ... when no prior art reference or references of record convey or suggest the knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.

In view of the foregoing, Applicants request reconsideration and withdrawal of the rejection of claims 1-17 under 35 U.S.C. §103(a).

Enclosed is a $950.00 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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Chris C.Bowley
Reg. No. 55,016

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906

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